

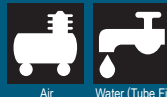


For Low Pressure

MICRO CUPLA

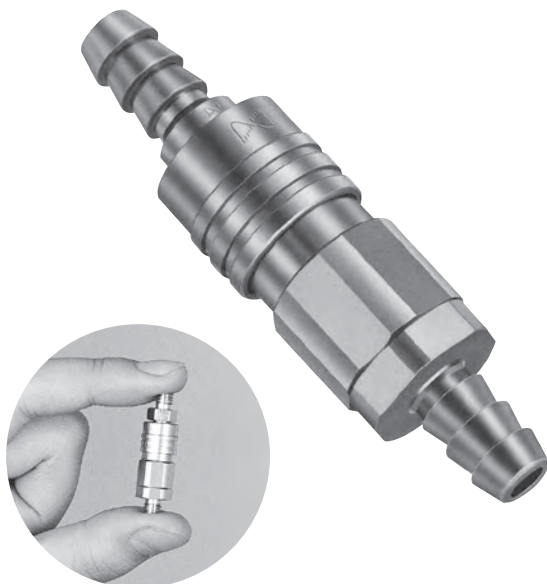
For piping in pneumatic control devices

<p>Working pressure</p>  <p>1.0 MPa {10 kgf/cm²}</p>	<p>Valve structure</p>  <p>One-way shut-off</p>	<p>Applicable fluids</p>  <p>Air Water (Tube Fitter type is unsuitable for water.)</p>
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Compact, lightweight CUPLA with only 9.5 mm outer diameter. Push-to-connect operation. Tube Fitter type for even easier tube insertion.

- Even though the valve is built into the socket, the sleeve outer diameter is confined to 9.5 mm.
- Push-to-connect design.
- Compact design for piping in narrow spaces.
- Plated brass and stainless steel bodies are available for excellent corrosion resistance.
- Available in various end configurations to satisfy a wide range of pneumatic applications.

Note: Fluid will flow out from the plug side when disconnected. Take necessary precautions if the fluid is water.



Specifications				
Body material		CUPLA : Brass (Plated), Stainless steel (SUS304) Tube Fitter Part : Brass (Plated) , Plastic		
Size	Thread	1/8" , M5×0.8		
	Tube barb	Tube ID ø3, ø4		
	Tube barb (Tube fitter) *1	Polyurethane tube: Outside Dia. ø4 ± 0.1, ø6 ± 0.1 Polyamide tube: Outside Dia. ø4 ^{+0.05} _{-0.08} , ø6 ^{+0.05} _{-0.08} Fluorine contained resin tube: Outside Dia. ø4 ± 0.05, ø6 ± 0.07		
Pressure unit	MPa	kgf/cm ²	bar	PSI
Working pressure	1.0	10	10	145
Seal material *2 Working temperature range *3	Seal material	Mark	Working temperature range	Remarks
	Nitrile rubber	NBR	-20°C to +80°C	Standard material
	Fluoro rubber	FKM	-20°C to +180°C	Made-to-order item

- Above specifications apply only to CUPLA. Maximum working pressure and working temperature range may vary depending on the tube materials used with and the working temperature.
*1: When connecting an extremely soft tube such as soft polyurethane or soft nylon, attach the insert ring specified by the tube manufacturer to the inner diameter of the tube to be connected.
*2: Combinations of the seal material and the valve material are as follows (Seal material/Valve material: NBR/ Resin, FKM/Metal). For tube fitter type, the seal material is NBR only.
*3: The operable temperature range depends on the operating conditions.

Maximum Tightening Torque		Nm {kgf·cm}	
Size (Thread)		M5×0.8	R 1/8
Torque	Brass	1.3 {13}	5 {51}
	Stainless steel		7 {71}

Flow Direction

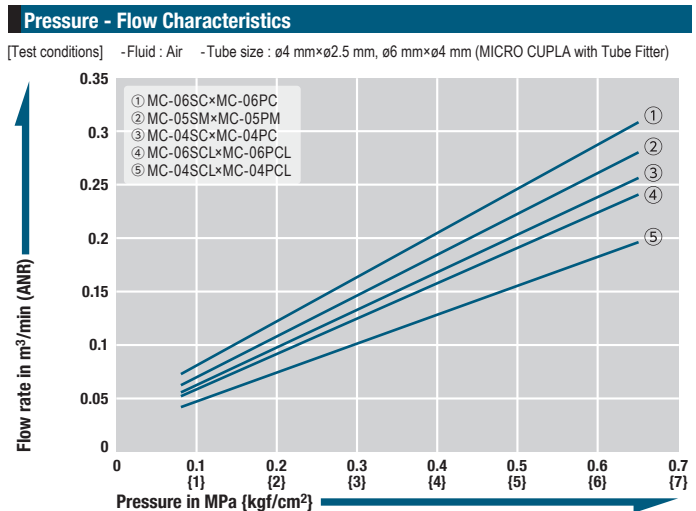
Fluid flow can be bi-directional when socket and plug are connected.

Interchangeability

Sockets and plugs can be connected regardless of end configurations.

Minimum Cross-Sectional Area	(mm ²)					
Model	MC-03SP	MC-04SP	MC-05SP	MC-10SP	Tube Fitter Type for 4 mm OD tube	Tube Fitter Type for 6 mm OD tube
Min. cross-sectional area	1.1	4.9	4.9	4.9	4.9	4.9

Suitability for Vacuum			53.0 kPa {400 mmHg}
Socket only	Plug only	When connected	
—	—	Operational	



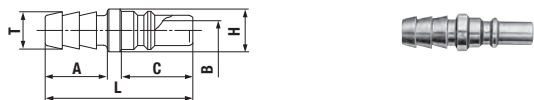
Tài liệu được tổng hợp bởi đội ngũ kỹ thuật của NPOWER. Bản quyền nội dung thuộc về Nitto Kohki.

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Models and Dimensions

Plug PH type (Tube barb)



Model	Application (Tube)	Body material*Mass (g) Brass	Dimensions (mm)					
			L	C	A	øH	øT	øB
MC-03PH	3 mm ID	1.2	19	9.2	8	5.5	3.5	1.2
MC-04PH	4 mm ID	1.4	19	9.2	8	5.5	4.8	2.5

Plug PM type (Male thread)



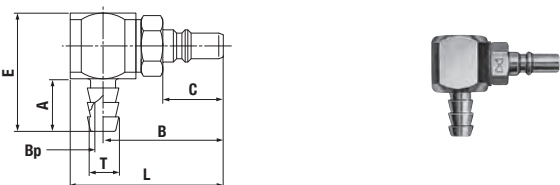
Model	Application (Thread)	Body material*Mass (g) Brass	Dimensions (mm)					
			L	C	A	H(WAF)	T	øB
MC-05PM	M5×0.8	1.9	17	9.2	4.5	Hex.7	M5×0.8	2.5

Plug PM type (Male thread)



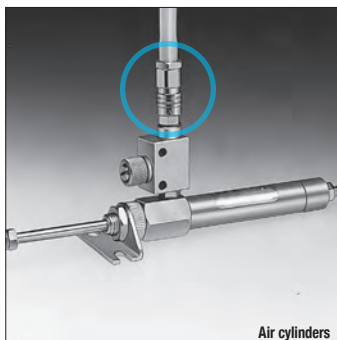
Model	Application (Thread)	Body material*Mass (g) Brass	Dimensions (mm)					
			L	C	H(WAF)	T	øB	
MC-10PM	Rc 1/8	9.0	26	9.2	Hex.11	R 1/8	2.5	

Plug PHL type (Tube barb)

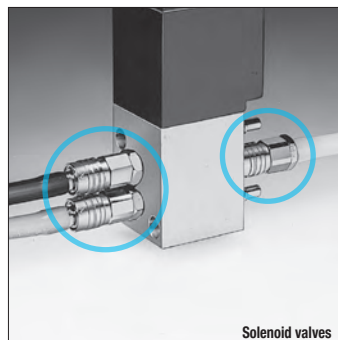


Model	Application (Tube)	Body material*Mass (g) Brass	Dimensions (mm)						
			L	C	A	B	E	øT	øBp
MC-04PHL	4 mm ID	9.4	(23.3)	9.2	8	(18.3)	18	4.8	2.5

Application Example

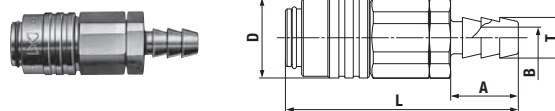


Always fix tubes with hose clamps when using hose barb types.



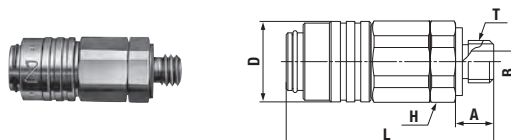
Always fix tubes with hose clamps when using hose barb types.

Socket SH type (Tube barb)



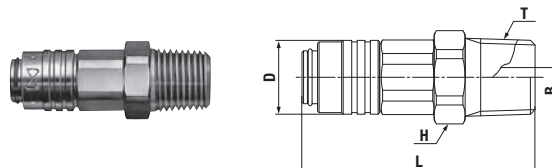
Model	Application (Tube)	Body material*Mass (g) Brass	Dimensions (mm)				
			L	øD	A	øT	øB
MC-03SH	3 mm ID	7.0	(27.5)	9.5	8	3.5	1.2
MC-04SH	4 mm ID	7.3	(27.5)	9.5	8	4.8	2.5

Socket SM type (Male thread)



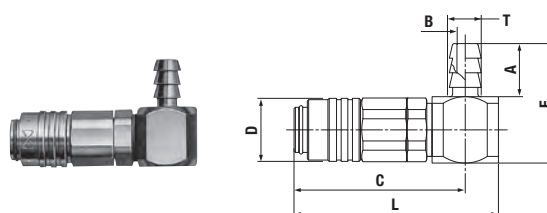
Model	Application (Thread)	Body material*Mass (g) Brass	Dimensions (mm)					
			L	øD	A	T	H(WAF)	øB
MC-05SM	M5×0.8	7.4	(24.5)	9.5	4.5	M5×0.8	Hex.9	2.5

Socket SM type (Male thread)



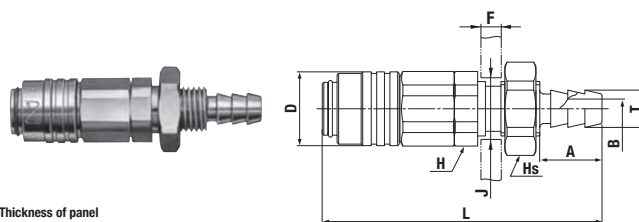
Model	Application (Thread)	Body material*Mass (g) Brass	Dimensions (mm)				
			L	øD	T	H(WAF)	øB
MC-10SM	Rc 1/8	13.1	(30)	9.5	R 1/8	Hex.11	3

Socket SHL type (Tube barb)



Model	Application (Tube)	Body material*Mass (g) Brass	Dimensions (mm)						
			L	C	E	A	øD	øT	øB
MC-04SHL	4 mm ID	14.8	(30.8)	(25.8)	18	8	9.5	4.8	2.5

Socket SHB type (For panel mounting)



F: Thickness of panel
øJ: Diameter of mounting hole

Model	Application (Tube)	Body material*Mass (g) Brass	Dimensions (mm)								
			L	A	øD	øT	øB	Hs(WAF)	øJ	H(WAF)	F
MC-04SHB	4 mm ID	11.5	(36)	8	9.5	4.8	2.5	Hex.11	7.1 ^{+0.3} ₀	Hex.9	1.2 to 3.5

Models and Dimensions (MICRO CUPLA with Tube Fitter)

Plug PC type (With Tube Fitter)

Model	Application (Tube)	Mass (g)	Dimensions (mm)			
			L	C	øT	øB
MC-04PC	4 mm OD	3.0	(21.7)	9.2	8	2.5
MC-06PC	6 mm OD	5.0	(25)	9.2	9.8	2.5

Socket SC type (With Tube Fitter)

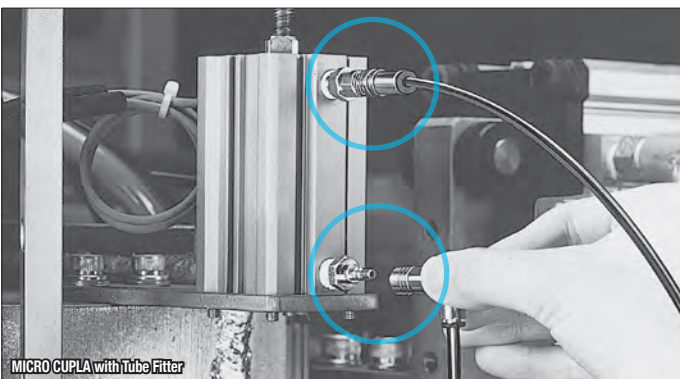
Model	Application (Tube)	Mass (g)	Dimensions (mm)			
			L	øD	C	øT
MC-04SC	4 mm OD	9.0	(31.5)	9.5	(12)	8
MC-06SC	6 mm OD	11.5	(33.5)	9.5	(13)	9.8

Plug PCL type (With L-shaped Tube Fitter)

Model	Application (Tube)	Mass (g)	Dimensions (mm)				
			L	C	E	øT	øB
MC-04PCL	4 mm OD	10.0	(23.3)	9.2	(18.3)	8	2.5
MC-06PCL	6 mm OD	13.5	(24.3)	9.2	(18.8)	9.8	2.5

Socket SCL type (With L-shaped Tube Fitter)

Model	Application (Tube)	Mass (g)	Dimensions (mm)				
			L	E	øD	C	øT
MC-04SCL	4 mm OD	16.0	(30.8)	(25.8)	9.5	(10)	8
MC-06SCL	6 mm OD	19.0	(31.8)	(26.3)	9.5	(12.5)	9.8



Socket SCB type (With Tube Fitter for panel mounting)

F: Thickness of panel
øJ: Diameter of mounting hole

Model	Application (Tube)	Mass (g)	Dimensions (mm)						
			L	øD	øE	Hs(WAF)	H(WAF)	F	øJ
MC-04SCB	4 mm OD	15.0	(34)	9.5	16	Hex.13	Hex.13	3.5 or less	10.5 ^{+0.3}
MC-06SCB	6 mm OD	18.5	(36)	9.5	18	Hex.15	Hex.15	3.5 or less	12.5 ^{+0.3}

Models and Dimensions (MICRO LINE CUPLA)

Socket MC-03 type (MICRO LINE CUPLA with three branch ports)

Mass: 65.0 g
• The branch body is made of aluminum alloy.

Dimensions (mm)

Socket MC-05 type (MICRO LINE CUPLA with 5 branch ports)

Mass: 101.0 g
• The branch body is made of aluminum alloy.

Dimensions (mm)

Socket MC-10 type (MICRO LINE CUPLA with 10 branch ports)

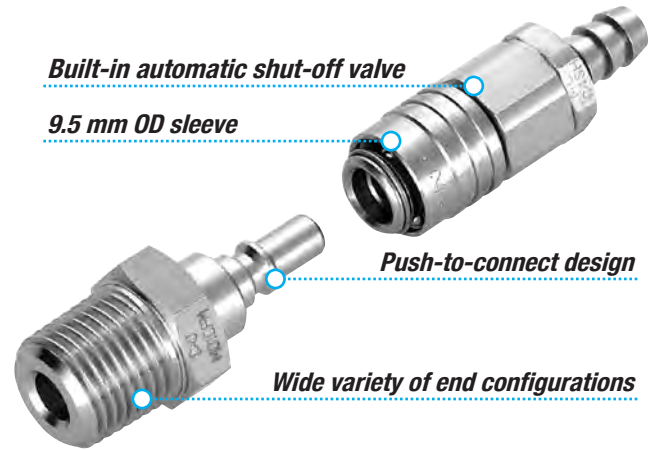
Mass: 187.0 g
• The branch body is made of aluminum alloy.

Dimensions (mm)

MICRO CUPLA

Stainless Steel Models

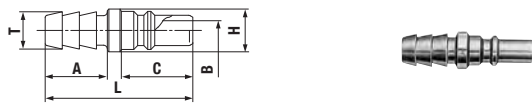
Highly Corrosion-resistant
Stainless Steel MICRO CUPLA



Models and Dimensions (Stainless Steel)

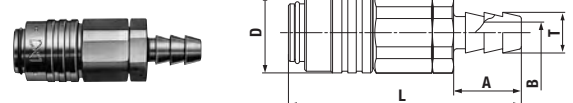
WAF: WAF stands for width across flats.

Plug PH type (Hose barb)



Model	Application (Tube)	Body material*Mass (g)	Dimensions (mm)						
		Stainless steel	L	C	A	øH	øT	øB	
MC-04PH	4 mm ID	1.3	19	9.2	8	5.5	4.8	2.5	

Socket SH type (Hose barb)



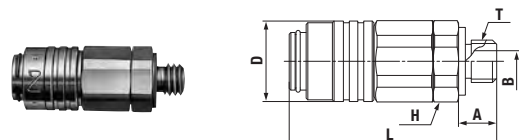
Model	Application (Tube)	Body material*Mass (g)	Dimensions (mm)				
		Stainless steel	L	øD	A	øT	øB
MC-04SH	4 mm ID	6.7	(27.5)	9.5	8	4.8	2.5

Plug PM type (Male thread)



Model	Application (Thread)	Body material*Mass (g)	Dimensions (mm)						
		Stainless steel	L	C	A	H(WAF)	T	øB	
MC-05PM	M5×0.8	2.2	17	9.2	4.5	Hex.8	M5×0.8	2.5	

Socket SM type (Male thread)



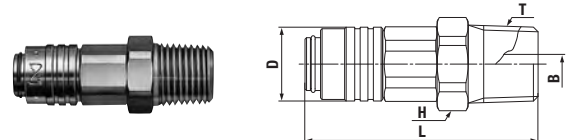
Model	Application (Thread)	Body material*Mass (g)	Dimensions (mm)					
		Stainless steel	L	øD	A	T	H(WAF)	øB
MC-05SM	M5×0.8	6.8	(24.5)	9.5	4.5	M5×0.8	Hex.9	2.5

Plug PM type (Male thread)



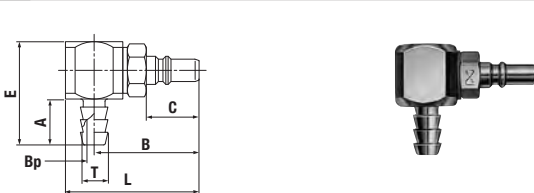
Model	Application (Thread)	Body material*Mass (g)	Dimensions (mm)				
		Stainless steel	L	C	H(WAF)	T	øB
MC-10PM	Rc 1/8	8.1	26	9.2	Hex.11	R 1/8	2.5

Socket SM type (Male thread)



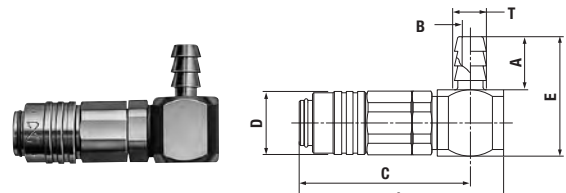
Model	Application (Thread)	Body material*Mass (g)	Dimensions (mm)				
		Stainless steel	L	øD	T	H(WAF)	øB
MC-10SM	Rc 1/8	12.1	(30)	9.5	R 1/8	Hex.11	3

Plug PHL type (Hose barb)



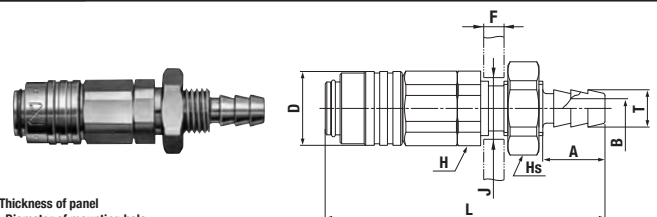
Model	Application (Tube)	Body material*Mass (g)	Dimensions (mm)						
		Stainless steel	L	C	A	B	E	øT	øBp
MC-04PHL	4 mm ID	9.0	(23.3)	9.2	8	(18.3)	18	4.8	2.5

Socket SHL type (Hose barb)



Model	Application (Tube)	Body material*Mass (g)	Dimensions (mm)						
		Stainless steel	L	C	E	A	øD	øT	øB
MC-04SHL	4 mm ID	13.6	(30.8)	(25.8)	18	8	9.5	4.8	2.5

Socket SHB type (For panel mounting)



F: Thickness of panel
øJ: Diameter of mounting hole

Model	Application (Tube)	Body material*Mass (g)	Dimensions (mm)									
		Stainless steel	L	A	øD	øT	øB	H(WAF)	øJ	H(WAF)	F	
MC-04SHB	4 mm ID	10.6	(36)	8	9.5	4.8	2.5	Hex.11	7.1 ^{+0.3} ₀	Hex.9	1.2 to 3.5	